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INTEGRATED REFUELLING SOLUTIONS

Technical Bulletin

Mounting CWID blocks

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Scope

The bulletin is to Guide Customers on how to mount the Compac Wireless identifier (CWID). It will include the following:

- Types of CWID identifiers
- Tuning of CWID aerials
- Maximum read range
- Possible mounting positions

Symptom

Sometimes if the CWID aerials are not tuned probably, or the CWID blocks are not mounted correctly, either too far away from the aerial or not in the correct orientation, the CWID Block will fail to be read.

Types of CWID identifiers

Below are the different types of CWID identifiers the Compac manufacture. This Bulletin will cover the mounting of only the first two types of tags (*F-CWIDD-TAG3 and F-CWIDD-TAG1)*

CWID in plastic carrier (part number F-CWIDD-TAG3)

CWID in nylon block (part number F-CWIDD-TAG1)

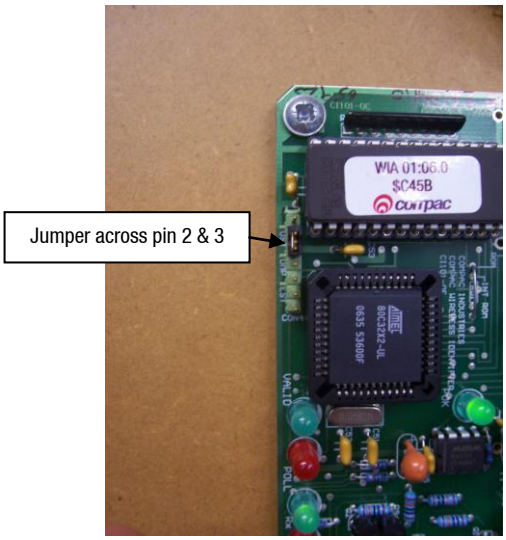
CWID in key ring carrier (part number F-CWIDD-TAG2)

Tuning of CWID aerial

If a new dispenser with a CWID aerial is being install, or a piece of an existing CWID system is being replaced i.e. CWID board or the CWID aerial, The CWID board will have to be tuned. Turning should always be done with the CWID aerial attached to the nozzle. Making sure that the CWID aerial is tuned properly is vital to getting the maximum range and reliability at from the system.

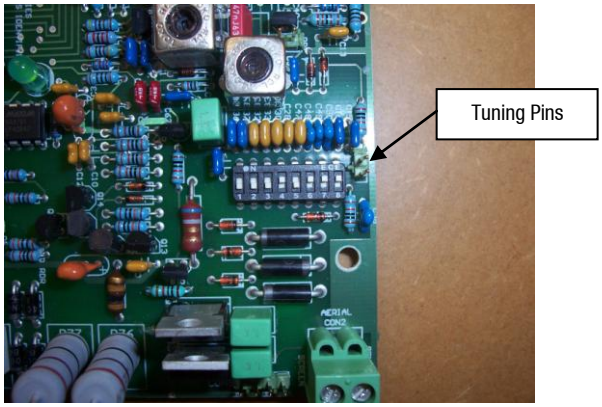
The follow procedure is to show how to tune the CWID aerial:

1. Place a jumper between pin 2 and 3 of con4 as shown. This with put the CWID Board into tuning mode.



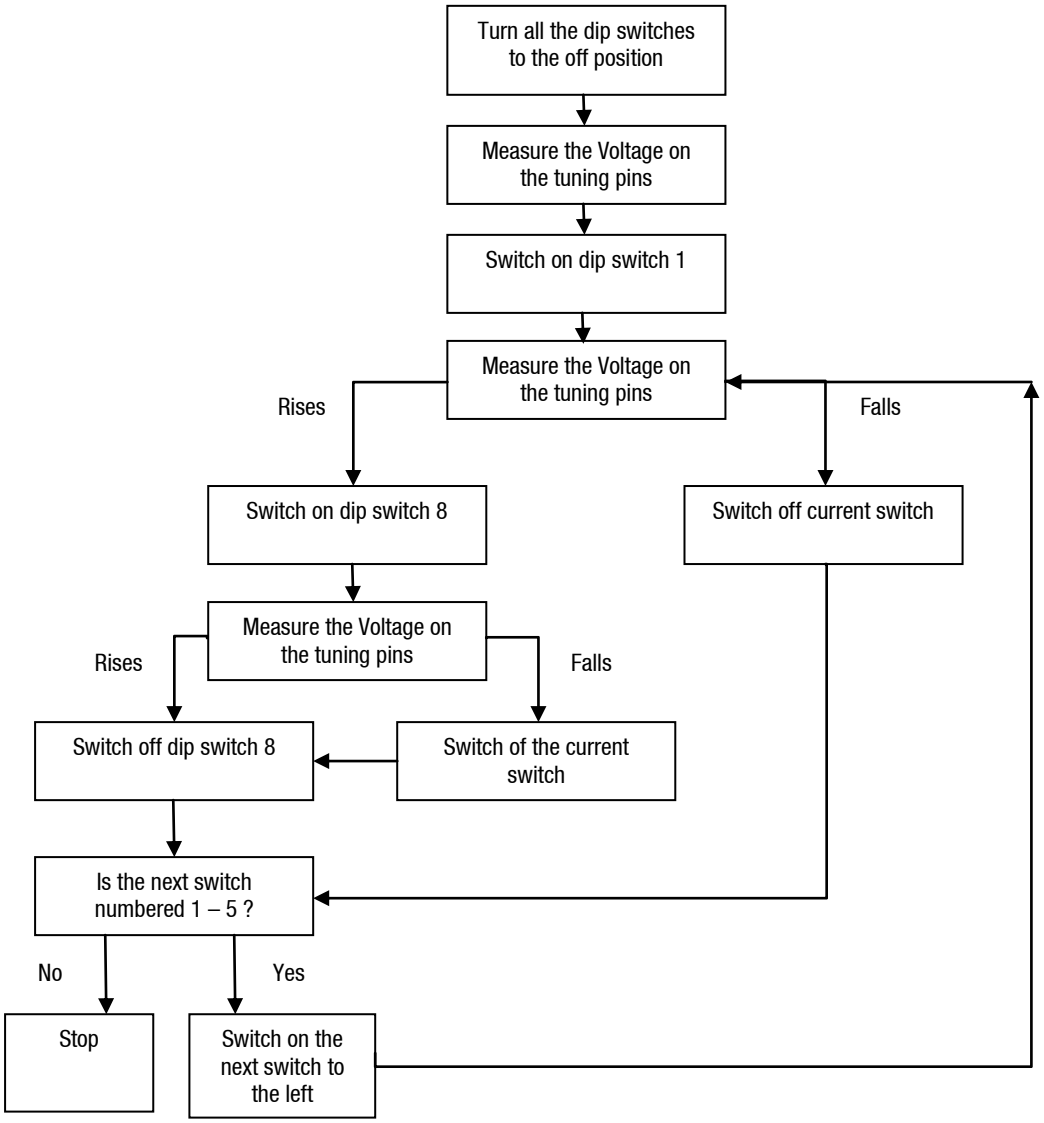
Jumper across pin 2 & 3 on con4

2. Turn the meter to voltage and select the range 0 – 50v. connect a multimeter to the tuning pins. These pins are labelled “TUNE”. The multimeter will show the voltage range of the aerial. The higher the voltage the further the range will be.



The tuning pins where the multimeter is connected

3. Use the dip switches to tune the CWID board to the CWID aerial. Each switch places a capacitor in parallel with other. Switch #1 to #5 run in a binary sequence and #6 to #8 run in unary sequence to “fill in” the smallest capacitance. The aerial uses a tuned circuit and the aim is achieve the optimum relationship between the capacitance provided on the CWID board and the inductance of the aerial. The entire process has the effect of a binary word and so the voltage will peak at some point. This is what we are looking for. When the peak is reached, increment the word by 1 and make sure that the voltage falls. This proves that the peck has been reached.



4. The final voltage after tuning should be as follows
    - Nozzle mounted CWID aerial type – 30 volts or higher
    - Panel mounted CWID aerial type - 19 volts or higher
5. Make sure the jumper is taken off after the unit has been tuned

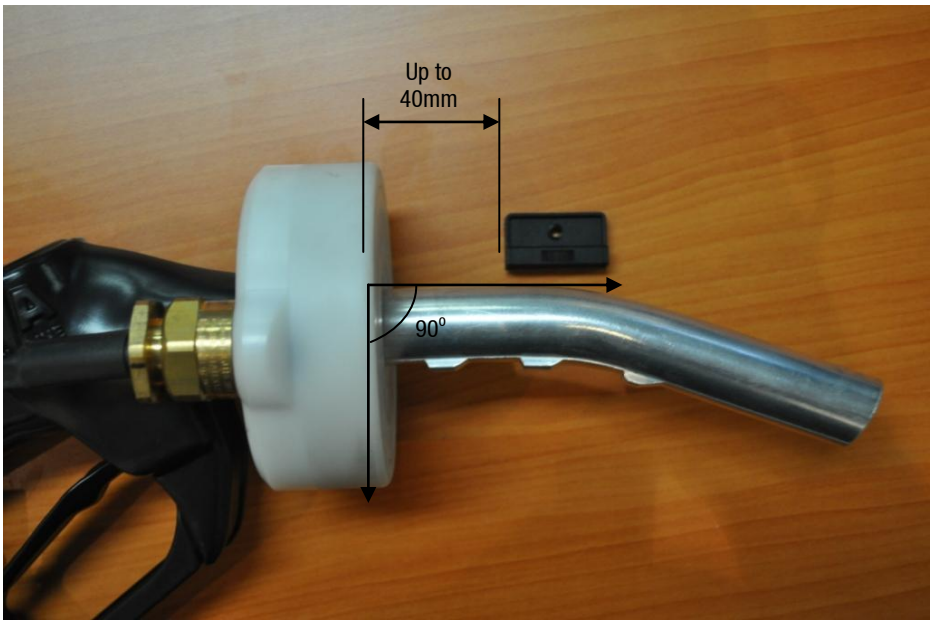
Maximum read range

The maximum read range for a CWID unit is dependent on the turning voltage and the mounting of the tags. If these conditions are met the maximum read range for a CWID systems are as follows:

- Nozzle mounted CWID aerial type – up to 40mm
- Panel mounted CWID aerial type – up to 10mm

Idea mounting position

The CWID Tags are designed to be mounted Perpendicular to the CWID aerial. This means the CWID tag is usually mounted on the fuel spout of the vehicle.



Sometimes it is not possible to mount the CWID tags on the vehicles fuel spout. The tags can be mounted as shown but the read range can be greatly reduced. If the tags have to be mounted on the same plain as the aerial it must be mounted as close as possible to the aerial.

Helpdesk assistance
For any further queries regarding the above Service Advisory, contact the Compac Helpdesk on +64 9 579 1877 (Worldwide) or 1800 145 887 (Australia) helpdesk@compac.co.nz